United States District Court
District of New Hampshire

Litigant's Manual for Courtroom Technology
Courtroom 1

July 2001

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Overview

The US District Court, District of New Hampshire, launched a program several years ago to provide state-of-the-art technology for evidence presentation in the courtrooms. A key goal was to provide systems that are both sophisticated and flexible. The result of this effort is a choice of evidence presentation technologies to satisfy the different levels of requirements the litigants may have.

The evidence presentation systems are available in all of the trial courtrooms at the US District Court, except Courtroom 3. There are different configurations of the evidence presentation systems in the four courtrooms so you must know which methods you want to use to be sure that the correct courtroom is available for you, both for practice and for trial.

The evidence presentation system, officially called Presentation Display System (PDS), is a video "network" through which litigants may display evidence. All four courtrooms have been equipped for litigants to display images using a VCR and a *Samsung* Document Camera. The document camera is used to display photos, x-rays, sections of a document, and small objects. All courtrooms are also equipped with light pens for markup of display images, or for the creation of explanatory diagrams or visual aids on a blank "canvas" (the "chalkboard"). Locations which may view PDS images are the judge's bench, witness, jury, counsel tables, deputy's workstation, court reporter, and, in Courtroom 4, the law clerk's workstation and the gallery. There is also the capability to display computer-based images on the PDS. In Courtroom 4, bar code readers are installed for use with evidence presentation software, i.e., *Trial Director* or *Sanction*. Courtrooms 1 and 4 have recently added videoconferencing ability with the cameras and control system integrated into the courtrooms.

If you intend to use the PDS for your trial, you must notify the court no later than the final pretrial conference. Earlier is even better. Plan for practice time in the courtroom in which you will have trial well in advance of the trial date. Practice time should be scheduled through the appropriate case manager at the court.

This guide is an operational manual for the PDS in Courtroom 1. It does not give you information or advice on how to prepare a case for electronic display of evidence. This guide provides the instructions on how to run each of the components of the PDS, including how to connect your own computer to the system where appropriate.

Courtroom 1

The technology implemented in Courtroom 1 allows litigants to display evidence using a VCR, a *Samsung* Document Camera, and a litigant's computer. The VCR and document camera are located at a lectern in the center of the courtroom between the counsel tables. There are connections on the two counsel tables where the litigant's computer connects to the presentation display system (PDS), allowing both video (VGA) and audio input. This courtroom also has built-in videoconferencing capability, allowing witnesses to testify from a remote location.

There is a touch panel for the PDS controlled by the judge or courtroom deputy. This switch activates the display from the lectern, counsel tables or the videoconferencing system, the light pens, and the jury monitors. The litigant notifies the judge which source to select, lectern or counsel table (for table number, see **Figure 7**), and when the jury monitors and light pens should be on. Either the Document Camera or the VCR is selected by the litigant using a switch at the lectern.

Switching between the Document Camera and VCR:
Display Source Selector

Litigants will use the **Display Source Selector** (see **Figure 1**) to switch between the VCR and *Samsung* Document Camera for display of evidence. This special device (under the **Preview Monitor**) is also known as a **scan doubler**. It converts the television signals from the VCR to the RGB signal used by the PDS, as well as switching the output from the devices on the lectern.
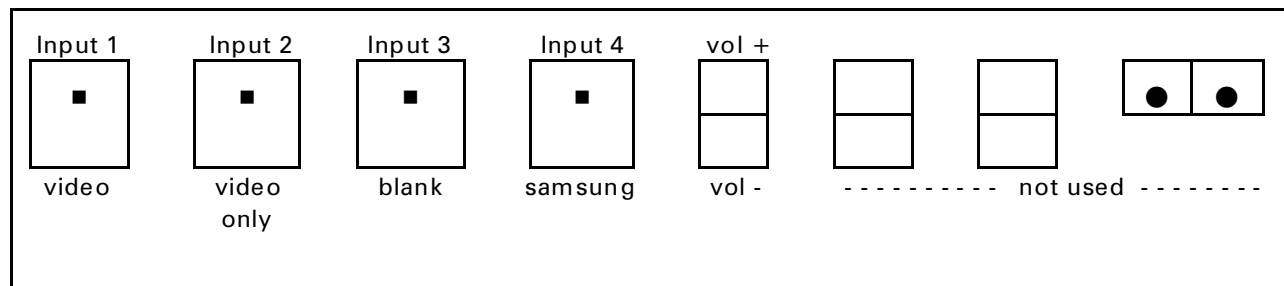

Figure 1
Display Source Selector Control Panel - *controls what is seen on the PDS monitors*

Samsung Document Camera

In order to use the *Samsung* Document Camera, counsel should request that the court make the lectern the source. The document camera is then activated by selecting Input4/samsung on the **Display Source Selector** (see **Figure 1**).

Operating Procedure:

1. Touch the green power button, near the red lamp, to power this unit on. The red lamp will turn green.

2. Touch the lamp button once to power on the upper lights.

   A. Touch the lamp button a second time to power off the upper lights, and power on the base lamp.

   B. Touching the lamp button a third time powers all the lights off.

3. Touch the mode button to power on the green light next to XGA.

4. Switch **on** the small **Preview Monitor** to the left of the *Samsung* Document Camera and make sure the A/samsung button is depressed on the **Preview Monitor Selector** (see **Figure 2**).
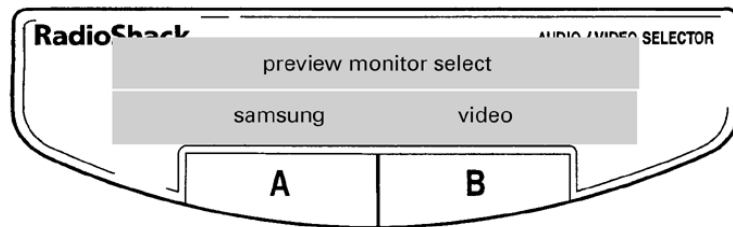

Figure 2 - **Preview Monitor Selector** - *controls what device shows on the preview monitor only*

Note: If the small **Preview Monitor** gives you a screenful of multicolored blocks or other garbage, instead of whatever is on the *Samsung* stage, double check the **Preview Monitor Selector** (see **Figure 2**) and make sure the A/samsung button is depressed. If the display is still unusable, power the *Samsung* Document Camera off and then on.

Displaying Printed Materials/Objects

1. Press the A/samsung button on the **Preview Monitor Selector** (see **Figure 2**). This will show whatever is on the stage of the video presenter. Press the freeze button (The freeze button only effects the PDS display, not the **Preview Monitor**).

2.   Place the document/object on the stage (the flat display surface), face up. While observing the image on the **Preview Monitor**, adjust the zoom buttons to obtain the optimum size.

3.   Use the focus buttons for focusing the image to maximum sharpness.

4.   Before changing documents, touch the freeze button. Use the image on the **Preview Monitor** to help you position the document. Touch the freeze button a second time when the new document is in place to unfreeze the display.

        Please note: The *Samsung* can display a readable image of a full-page view of an 8½" x 11" document, but you probably won't want to subject a jury to text that small! There are two ways you can handle this:

        A.   If you really only need to show a portion of the document at one time, try zooming in to the extreme left and right margins (press the freeze button before you do this). The **Preview Monitor** over scans a little, so if you zoom in "tightly" (all the way to the borders of the screen) on the **Preview Monitor**, you'll have a bit of room at the edges, and have nice display margins when you unfreeze, and show your document on the PDS monitors.

        B.   If you really need to show the entire page, press the freeze button, and zoom in, very tightly, on the *top* and *bottom* margins this time (while viewing on the **Preview Monitor**). You will zoom in so that the top and bottom lines of your document text are slightly off the screen of the **Preview Monitor.** Now, press the full/scroll button, the last button on the right end of the *Samsung* control panel. When you unfreeze, you will be displaying, on the PDS, the upper two-thirds of your document. You can scroll the view around or up and down by using the arrow keys, arranged in a circle just to the left of the full/scroll button. This scrolling, unlike manually moving the document around on the stage, will be very smooth, not the jerky and dizzying effect you see on the **Preview Monitor** (or on the PDS if you forget to use the freeze button before you move your exhibit). If you touch any control other than the arrow keys, the *Samsung* will exit full/scroll, and return to its normal display mode.

Transparencies/X-Rays

To start, freeze the main display, and use the small **Preview Monitor** to help set this up - press the A/samsung button on the **Preview Monitor Selector**.

1.   Touch lamp to turn the base lights **on** (see *Operating Procedure* above).

2.	Set the nega/posi button to the negative mode.

3.	Use the tone button to get the best image.

Control Panel Features

lamp - There are two built-in light systems for viewing. Materials such as printed material and 3-D objects use the upper lights, and transparencies use the base lights. When the lamp button is pressed first, the upper flourescent lamps light. Pressed a second time, the upper lights go out and the base light comes **on**, illuminating the translucent stage. To turn all lamps off, press the lamp button a third time.

Use the upper lights to obtain a clearer image with better color, especially when the stage is not sufficiently illuminated by room lights or if a 3-d object is to be viewed.

nega/posi - This function is used to display negative film as positive images and vice-versa. The normal position is Positive. Pressing the nega/posi will switch to the Negative display mode (and NEGATIVE will display briefly on the monitor). Press it again, and you will return to Positive display mode (and POSITIVE will display briefly on the monitor).

tone - Try this to get the best image quality. It alternates between NATURAL color and an ENHANCED mode. Try both to see which gives you the best image.

zoom - Pressing T (on the remote) or up arrow button enlarges the image. Pressing W (on the remote) or down arrow reduces the image.

focus - The two buttons marked focus are the focus controls.

 The Samsung doesn't have an Auto focus mode, but its lens has a very deep "depth of field" (this means you don't have to try hard to get good sharpness)! Once focused, you shouldn't have to change it. If you continue to adjust the focus once the image is sharp, you might find that the focus control behaves like a "micro-zoom" control, slightly enlarging or reducing the image.

iris - a.k.a. the "Brightness" and "Contrast" control. You should only need to adjust this for very light or dark documents, or possibly for 3-d objects. Adjust while watching the monitor for the best image.

awc - This is to calibrate the display color balance. Does your white document look pink or purple? Is that orange object displaying yellow? Place a plain white piece of paper on the base and touch this button. The screen will display white balance momentarily, and then your document should look better (more natural). You might also need to do this if you switch from room lights to one of the *Samsung's* built-in lamps.

int/ext - The normal display mode is INTERNAL. This will display whatever is on the *Samsung* stage. Press this button once and EXTERNAL will be displayed briefly on the PDS monitor. Normally, there is nothing connected to the external hookup. Press it again to return to INTERNAL display mode.

full/scroll - This button activates the smooth, digital scrolling display mode. Use the arrow keys just to the left of the full/scroll button to control the display.

VCR

        The VCR offers the usual features for playing videotapes. Use the appropriate buttons inside the front panel or on the remote. The VCR is also equipped with a jog dial for frame-by-frame playback as well as a shuttle ring for slow-motion playback. See the sections below for instructions on using these features on the VCR. There is a small television (the **Preview Monitor**) located at the lectern with which you may view your tape before showing it in court.

To play a videotape:

1.   Press Input1/video on the **Display Source Selector** (see **Figure 1**) and press the B/video button on the **Preview Monitor Selector** (see **Figure 2**) to select the VCR.

2.   Open the front panel (either press the push to open button, or open the panel with your fingers) to expose the tape slot and the VCR controls (see **Figure 3**). Insert tape into the VCR. The VCR will power on automatically. If the video tape safety tab has been broken, the tape will automatically start playing. Otherwise, you must press play/> on the VCR or the remote control.

3.   Use either the controls inside the front panel of the VCR or the remote control to select other functions, except for volume.

4.   Volume is adjusted by pressing the vol+ or vol- buttons on the **Display Source Selector** (see **Figure 1**).
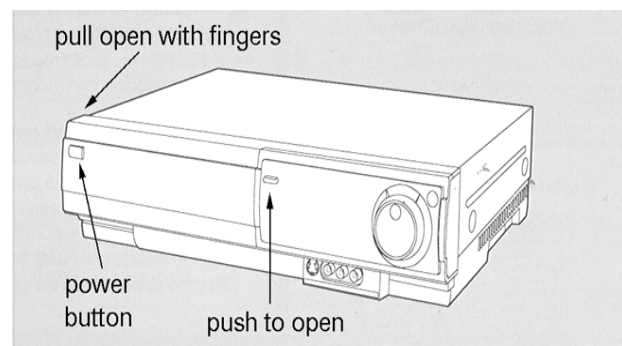

Figure 3 - *open the VCR with the button or your fingers*

Unedited tapes:

It is preferred, although not required, that litigants have available an edited video for playback during any court proceeding. If such edited version is not available, the following features should assist you in presenting the unedited tape.

Real-time tape counter The VCR is equipped with a real-time tape counter that shows the running time in hours, minutes, and seconds. You can easily determine how long the tape has been running, where objectionable material is located, or how much time is left on the tape. When a tape is inserted, the counter will reset to 00:00:00. There is also a counter reset button to reset the tape counter to zero at any time (see **Figure 4**).

Jog Dial and Shuttle Ring These controls allow you to vary the forward and backward playing speed, and to advance or retreat the tape a frame at a time (see **Figure 5**). Not just for editing, these controls can also be used during a presentation to break a video segment into sequential frames, or to advance slowly to a single freeze-frame image.

Headphones to monitor audio If you want to verify the audio in addition to using the counter, e.g., to be sure exactly when to resume viewing, there are headphones attached to the **Preview Monitor** for your use. The volume control buttons are on the top of the **Preview Monitor**.
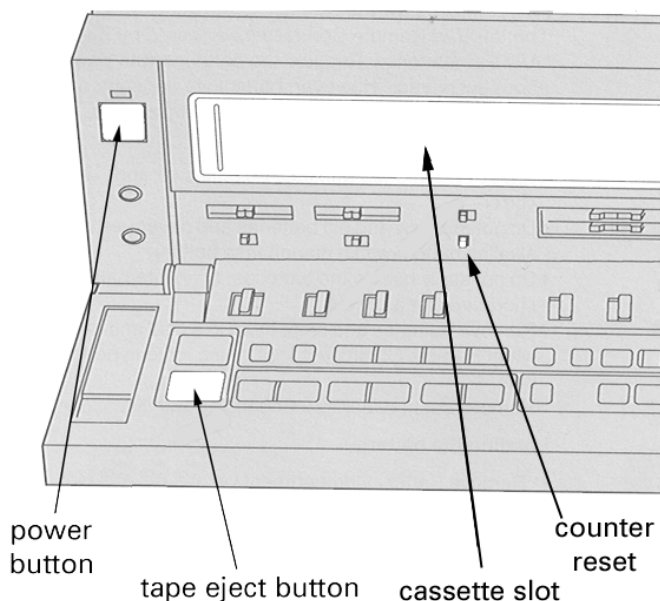
Figure 4 - *press the counter reset button the zero the counter at any point on the tape*
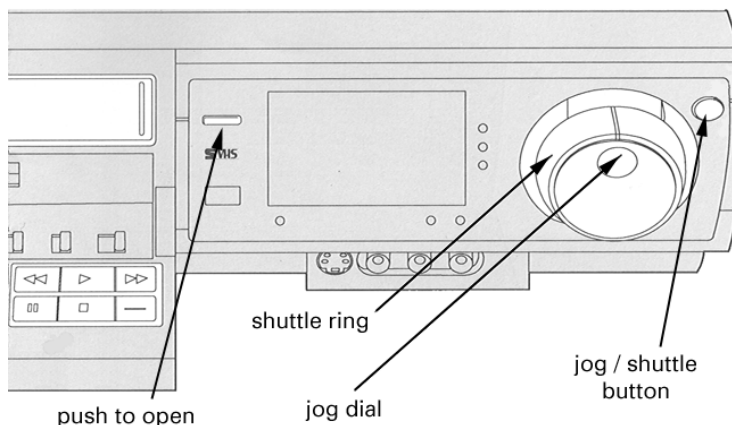
Figure 5 - *the jog dial and shuttle ring allow very precise positioning of the tape*

Video Editing Examples

Using the keys on the VCR or the remote:

1.   Press the B/video button on the **Preview Monitor Selector** (see **Figure 2**).

      A.   Press pause/|| on the VCR or on the remote to temporarily stop playback. The VCR displays a still image.

      B.   Press Input 3/blank on the **Display Source Selector** (see **Figure 1**). This will cause all screens to go blank, except the small **Preview Monitor**.

            Note: You can also select Input 4/samsung. While the document camera is displaying, the video tape will not be seen or heard on the PDS.

      C.   Press pause/|| again or play/>, to resume playback of the video. Then press and hold fast forward/>> or rewind/<< to speed to the predetermined time on the tape. If you "tap" (press and release quickly) fast forward/>> or rewind/<< while the tape is playing, the tape will play continuously at the higher speed until you press play/> to resume normal playing.

      D.   Press pause/|| to again stop the tape. The VCR displays a still image.

      E.   Press Input 1/video on the **Display Source Selector** (see **Figure 1**) to select the VCR when you are ready to present the video tape material.

      F.   Press pause/|| to resume playing the tape.

2.   Press the A/samsung button on the **Preview Monitor Selector** (see **Figure 2**) when you are finished editing the tape. This will allow the **Preview Monitor Selector** to be used with the document camera.

Using Jog dial and Shuttle ring:

1.   Press the B/video button on the **Preview Monitor Selector** (see **Figure 2**).

      A.   Press pause/|| on the VCR or on the remote to temporarily stop playback.

      B.   Press Input 3/blank on the **Display Source Selector** (see **Figure 1**). This will cause all screens to go blank, except the small **Preview Monitor**.

Note: You can also select Input 4/samsung. While the document camera is displaying, the video tape will not be seen or heard on the PDS.

C. Press the jog/shuttle button (see **Figure 5**). The button will light, and the VCR displays a still image.

D. Rotate shuttle ring (see **Figure 5**) backwards or forwards. The playback speed varies in the forward and backward directions depending on how much, and which direction you rotate the shuttle ring.

E. When you are near the point on the tape you want to start from, rotate the shuttle ring to the center position (the ring will "click" softly when in the center position). The VCR displays a still image again.

F. You can precisely locate your starting point by rotating the jog dial (see **Figure 5**) with your fingertip. Move it back and forth to move the tape frame by frame.

G. When you have located your starting point, press the jog/shuttle button again. The light goes off, and playback stops.

H. Press Input 1/video on the **Display Source Selector** (see **Figure 1**) to select the VCR when you are ready to present the video tape material.

I. Press play/> to begin playing the tape.

2. Press the A/samsung button on the **Preview Monitor Selector** (see **Figure 2**) when you are finished editing the tape. This will allow the **Preview Monitor Selector** to be used with the document camera.

To use a computer for evidence presentation

A litigant may use a computer for presenting evidence. In Courtroom 1, this computer is provided by the litigant and connected to the PDS through a connection panel behind the monitor on the counsel table. There are two connections, a VGA (HD15 - male), and an Audio In (1/8"stereo minijack - female). **Figure 6** (next page) illustrates the panel and the connections. The following are the cables needed.:

Note: All cables are to be provided by the litigant.

1 - **VGA cable** - HD15 - male (panel) to HD15 - male (PC)
1 - **Audio cable** - 1/8"stereo miniplug male (panel) to 1/8"stereo miniplug male (PC)
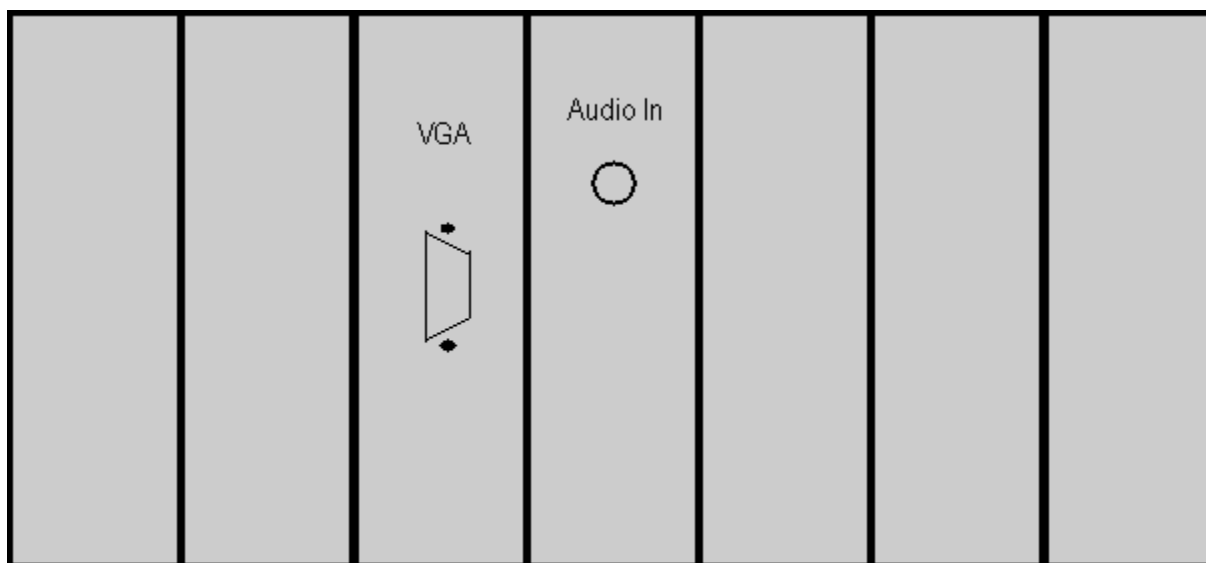
Figure 6 - *connecting to this panel will*
allow you to show your PC display on the PDS

The configuration for the computer end of the cable assumes industry standard connections on your computer. It is in your best interest to verify the connections on your computer to be sure that you arrive at the court with the correct cables. If you cannot locate a cable with the correct combination of male/female connections, a gender changer may be the solution.

There is a power strip near this panel for easy access to power for the computer. If the computer is a laptop, it must be set for "external monitor" once it is turned on. If this isn't done, there will not be any output to the PDS. The court-provided monitor may be used to both view the PDS images and to work on the computer locally. If the computer is a laptop and the litigant wishes to use an external keyboard, it is up to the litigant to bring it for this courtroom.

There is a switch attached to the side of the monitor marked PDS/ PC. This should be switched to PC when you are presenting evidence from your PC. It should be on PDS when you wish to view evidence being presented via the PDS from the lectern or the other counsel table.

When you are ready to present evidence from the PC connected at your counsel table, request that the court make your table the source for the PDS (see **Figure 7** for your table number).

Selecting the source of input to the PDS

There is a touch panel for the courtroom which determines the active source of input to the PDS. There are four sources of input to the PDS in Courtroom 1: the lectern, counsel table 1, counsel table 2, and videoconferencing. It is counsel's responsibility to request that the touch panel be set to the location being used for the display of evidence. You can tell what number counsel table you are using by looking at the chart at **Figure 7**.

When the Document Camera or the VCR is being used, the designation of the source for the PDS is the lectern. When the lectern is the source, the litigant is responsible for switching between the Document Camera and VCR as appropriate, using the **Display Source Selector** (see **Figure 1** and the earlier paragraph in this document *Switching between Document Camera and VCR*).

Controlling the jury monitors

The monitors in the jury box are switched separately from the rest of the monitors on the PDS. This is to help prevent the display of inadmissible evidence to the jury. It is the litigant's responsibility to be sure that the jury monitors are on when needed.

Each time the PDS source is switched, the jury monitors are automatically turned off. When ready for the jury to see evidence through the PDS, request that the jury monitors be turned on.

Important note: When the Document Camera and VCR are in use, the PDS source is the lectern. Switching between the Document Camera and VCR using the **Display Source Selector** (see **Figure 1**) does not change the *PDS source*, it is still the lectern. If the jury monitors were on, they will stay on. In this situation it is important to request that the jury monitors be turned off before displaying evidence which has not yet been admitted.

Using the light pens

Light pens are used with the PDS and are installed at the following workstations: judge, witness, lectern, and counsel tables. The light pen is a black tube with a single button on the side of the barrel (about the size and shape of a large felt marking pen), and is attached to the side of the monitor when not in use.

 Activation of the light pens is controlled by the same switch (with touch panel) as the PDS and jury monitors in Courtroom 1. Each time the PDS source is changed, the light pens are automatically turned off. To activate them, the litigant must request that the light pens be turned on. Any marks which were previously displayed will still be there. To clear them, see the procedures on using the light pens).

Remember: You will have to ask the court to have the light pens activated!

Draw: Press and hold the tip against the screen while drawing. Keeping the pen close to perpendicular to the screen will insure the greatest success.

Erase: Holding the light pen away from the screen, press and release the barrel button. This will erase the most recently added mark. Continue to press and release to erase marks made on the screen, newest to oldest. This can be done from any location, so it's best not to handle the light pen at your location, if you aren't the current user

Clear all marks: Holding the light pen near the screen, press and hold the barrel button until all marks are gone.

Change The Color: Press and hold the barrel button while tapping the point to the screen.

Alternately, you can press and hold the barrel button while tapping the point with a finger of your free hand (the light pen doesn't have to be pointed at the screen for this function). Each tap (of the point of the light pen) will select a different color. The color will be displayed as a box in the lower right corner of the screen.
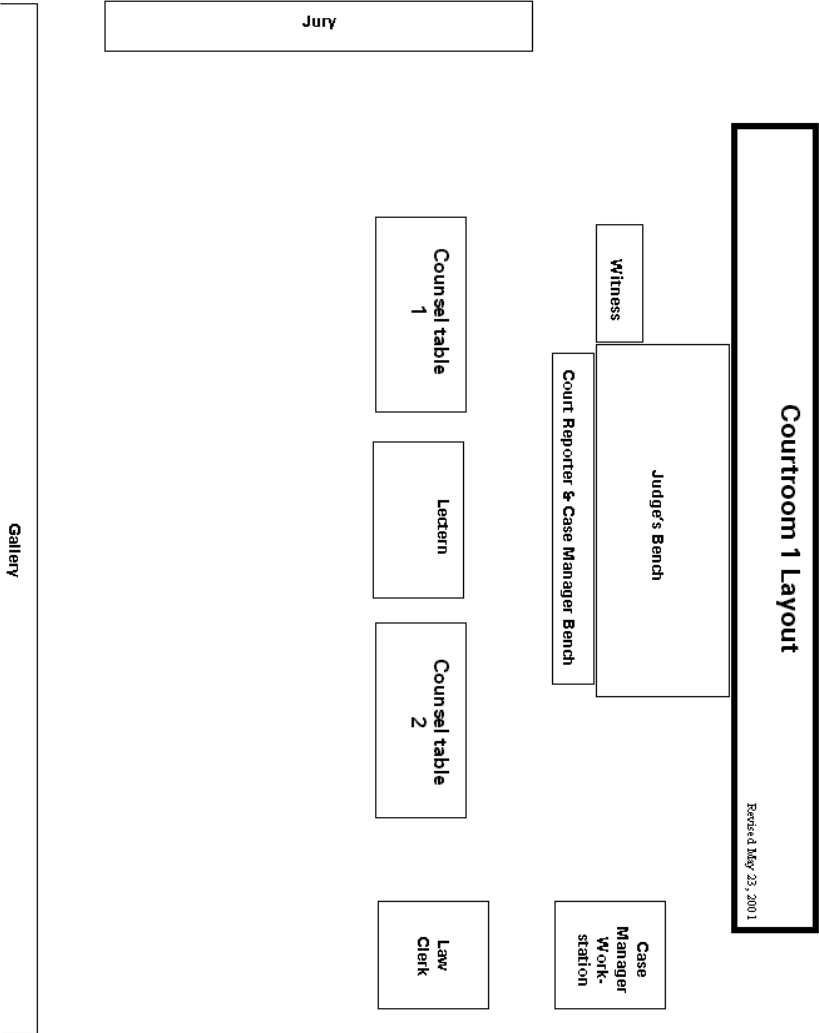
These procedures are also posted at each location.

Activate the chalkboard: Ask the case manager to activate the "chalkboard" function. This will remove all background video, leaving you with a solid blue screen. Any light pen marks made before the "chalkboard" is activated will remain on the now blue screen. See above to clear any previous marks.

Troubleshooting:

Important note: It is highly recommended that you schedule time in the courtroom to test the features you intend to use, including the features in the software you intend to use. The more complex your presentation, the earlier you should be testing in the courtroom. This is the best way to understand how your presentation will look to the court and jury and to ensure that you have chosen the system features which are most effective for your case.

* Should the *Samsung* Document Camera display become unstable, or if the buttons or the display freeze (and you didn't press the freeze button), power the unit off for a few seconds (touch the power button), then back on. Everything should return to normal after that.

* If the small **Preview Monitor** gives you a screenful of multicolored blocks or other garbage, instead of whatever is on the *Samsung* stage, double check the **Preview Monitor Selector** (see **Figure 2**) and make sure the A/samsung button is depressed. If the display is still unusable, power the *Samsung* Document Camera off and then on.

* If the light pen offset (the difference between where you are drawing and where the lines appear on the monitor) is great, ask the case manager to have the light pen re-calibrated. This is most likely to be a problem if you are NOT using the visual presenter.

* The light pens do not mark well over dark or black images. An x-ray, for example, is an item which does not lend itself to markup with the light pens. While you cannot draw over the x-ray, you may find it satisfactory to use the light pen to make marks in a clear section beside the image to draw attention to a certain feature. Another alternative is to scan the image into a computer and manipulate it with evidence presentation software such as *Trial Director* or *Sanction*.

* An 8 ½" x 11" document displayed in full-page mode on the visual presenter could be difficult to read. See *Displaying Printed Material/Objects*, item 4 in the *Samsung* Document Camera section of this manual for ideas.

* Documents displayed from evidence presentation software ahve some limitations when displayed on the jury monitors. We have discovered some image enhancements/enlargemetns do not display clearly, while others do.

the layout and table numbering of Courtroom 1

Jury

Gallery

Courtroom 1 Layout

Revised May 23, 2001

Witness

Judge's Bench

Court Reporter & Case Manager Bench

Counsel table 1

Lectern

Counsel table 2

Case Manager Work- station

Law Clerk